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PATENT COOPERATION TREATY

PCT NOTIFICATION OF ELECTION (PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
US Department of Commerce
United States Patent and Trademark
Office, PCT
2011 South Clark Place Room
CP2/5C24
Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
in its capacity as elected Office

Date of mailing (day/month/year) 28 March 2001 (28.03.01)	Applicant's or agent's file reference PC/MGM/21569
International application No. PCT/IB00/00836	Priority date (day/month/year) 09 July 1999 (09.07.99)
International filing date (day/month/year) 12 June 2000 (12.06.00)	Applicant LIAO, Hongtao et al

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
09 February 2001 (09.02.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Pascal Piriou Telephone No.: (41-22) 338.83.38
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(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 January 2001 (18.01.2001)

PCT

(10) International Publication Number
WO 01/05162 A1

(51) International Patent Classification?: **H04N 17/04,**
G06F 11/00, 11/26

(74) Agents: **COZENS, Paul, Dennis et al.;** Mathys & Squire,
100 Gray's Inn Road, London WC1X 8AL (GB).

(21) International Application Number: **PCT/IB00/00836**

(22) International Filing Date: **12 June 2000 (12.06.2000)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
99401744.0 * 9 July 1999 (09.07.1999) **EP**

(71) Applicant (for all designated States except US): **CANAL+ SOCIETE ANONYME [FR/FR];** 85/89, quai Andre Citroen, F-75711 Paris Cedex 15 (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LIAO, Hongtao** [FR/FR]; 4, rue du Canal, F-78180 Montigny-Btx (FR). **MASSON, Bruno** [FR/FR]; Canal+ Technologies Société Anonyme, 34, place Raoul Dautry, F-75516 Paris Cedex 15 (FR). **BEUQUE, Jean-Bernard, Gerard, Maurice** [FR/FR]; 132, rue Victor Hugo, F-92270 Bois-Colombes (FR).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **APPARATUS FOR AND METHOD OF TESTING SOFTWARE APPLICATIONS**

(57) Abstract: Apparatus for testing an application for a receiver/decoder, for example, for a television system, is disclosed, the apparatus comprising means for simulating a function of the receiver/decoder. Apparatus for editing and testing an application, and an associated workstation are also disclosed. Also disclosed is a method of testing applications, in which a function of a receiver/decoder is simulated.



WO 01/05162 A1

PATENT COOPERATION TREATY

PCT

REC'D 16 OCT 2001

WIPO PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PC/MGM/21569	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IB00/00836	International filing date (day/month/year) 12/06/2000	Priority date (day/month/year) 09/07/1999
International Patent Classification (IPC) or national classification and IPC H04N17/04		
Applicant CANAL+ SOCIETE ANONYME et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 9 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 09/02/2001	Date of completion of this report 12.10.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Moorhouse, D Telephone No. +49 89 2399 8631 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00836

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
- Description, pages:**

1-29 as originally filed

Claims, No.:

1-27,28 (part) as originally filed

28 (part),29-42 as received on 24/09/2001 with letter of 24/09/2001

Drawings, sheets:

1/13-13/13 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00836

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☐ claims Nos. .

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 15, 31, 32 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/IB00/00836

1. Statement

Novelty (N)	Yes:	Claims	3-10,17,18,20,23,24,27,28,33-42
	No:	Claims	1,2,11-14,16,19,21,22,25,26,29,30
Inventive step (IS)	Yes:	Claims	
	No:	Claims	3-10,17,18,20,23,24,27,28,33-42
Industrial applicability (IA)	Yes:	Claims	1-14, 16-30, 33-42
	No:	Claims	

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Concerning Box III

Claims 31 and 32 do not meet the requirements set out in Rule 6.2 (a) PCT. Consequently, these claims are so unclear, that no meaningful opinion as to the requirements set out in Article 33 PCT can be given.

Furthermore, claim 15 is so unclear ("a screen which represents a piece of hardware with which a receiver/decoder may interact"), that no meaningful opinion as to the requirements set out in Article 33 PCT can be given.

Concerning Box V

The following documents are cited:

D1 : WO-A-98/43433

D2 : WO-A-98/43165

The subject-matter of claims 1, 2, 11-14, 16, 19, 21, 22, 25, 26, 29 and 30 lacks novelty, and therefore does not meet the requirement set out in Article 33 (2) PCT.

Document D2 discloses an apparatus (4001, 2021) for testing an application for a receiver / decoder, comprising means (2021) for simulating a function of a/the receiver decoder.

Thus, the subject-matter of independent apparatus claim 1 and corresponding independent method claim 25 is known from document D2. Since the apparatus in document D2 includes a computer workstation, a computer program (product) is also (implicitly) disclosed. Therefore, the subject-matter of independent claims 29 and 30 is also known from document D2.

In this analysis, the duplicate STB 2021 has been considered part of the apparatus. This is legitimate in view of the fact that such a configuration is within the claimed scope, as expressly stated in dependent claim 11. The subject-matter of claim 11 also lacks novelty, for this reason.

The subject-matter of claim 2 is likewise known from document D2 (the application is run in simulated STB 2021).

The subject-matter of claim 12 is known from document D2 (see page 8, third full paragraph).

The subject-matter of claim 13 is known from document D2 (see page 12, lines 5 to 8).

The subject-matter of claim 14 is known from document D2 (see MPEG generator 4045).

The subject-matter of claims 16 and 19 is known from document D2 (see authoring tool 4004, in addition to what has been cited against claims 1 and 25).

The subject-matter of claim 21, 22 and 26 is known from document D2 (see authoring tool 4004, simulated / duplicate STB 2021 with workstation 4013 and application memory 4011 and VDU 4005 as regards claim 21; see the objections to claim 19 and 16 as regards claims 22 and 26).

The subject-matter of claims 3 to 10, 17, 18, 20, 23, 24, 27, 28 and 33 to 42 lacks an inventive step, and therefore does not meet the requirement set out in Article 33 (3) PCT.

The additional features of claims 3 to 9 relate to well known / obvious features of computer workstations such as disclosed in document D2, or of the VM / RTE disclosed in document D1, and are thus of no inventive significance.

The additional features of claims 10, 18 and 24 are obvious in view of the fact that it is better to start by simulating in software only, and then to gain results from a real piece of hardware, however good the simulation might have been (for which reason, car designers go from computer models to wind tunnel models and prototypes).

Since workstations such as that disclosed in document D2 run, by and large, a GUI ("windows") interface, the additional features of claims 17 and 23 also lacks an inventive step.

The additional features of claim 20 relate to obvious functions to be simulated for a receiver, and thus are of no inventive significance.

The provision of a computer readable medium storing a program as claimed in claims 27 and 28 is extremely obvious in view of the use of a computer workstation in document D2.

As pointed out above with respect to claims 10, 18 and 24, it is better to start by simulating in software only, in this case, of course, the simulation will be customized, i.e. only that which is to be simulated will in fact be modelled and simulated, otherwise, too much time and resources are consumed. Thus, the subject-matter of claims 33, 35, 36 and 38 (see objections to claims 10, 18 and 24 with regard to claim 36) is rendered obvious by the disclosure of document D2, and the knowledge of the skilled person.

The components to be simulated in claim 34 are rendered obvious by the disclosure of document D1.

The additional feature of claim 37 relates to an obvious time and/or cost cutting measure, and is thus of no inventive significance.

Performing all tasks in software is, as pointed out above with respect to the disclosure of claims 10, 18 and 24, an obvious starting point, so that the subject-matter of independent claim 39 and dependent claim 40 is rendered obvious by the disclosure of document D2, combined with the knowledge of the skilled person. The same arguments apply to independent claims 41 and 42.

The remaining documents cited in the International Search Report are less relevant, for reasons which will be apparent from the following brief summary of their disclosures:

US-A-5 659 793 Discloses an authoring program / apparatus for multimedia files. It allows different "time lines" for audio and video objects, and combines objects from the time lines to allow an interactive program to be made. However, there is no simulation, or any details thereof.

US-A-4 654 751 Discloses a "testing jig" which is placed between an MPEG encoder and a decoder of a set top box and which, for testing purposes, emulates the data transfer between a network interface and said decoder. Thus, the testing-jig has to be used in-situ with a decoder to be tested, and does not allow "simulation".

Concerning Box VII

The claims are not in the two-part form (Rule 6.3 (b) PCT).

Reference signs are missing from the claims (Rule 6.2 (b) PCT).

The reference "212" appearing on page 14, line 13 is missing from Figure 5. (Rule 11.13 (I) PCT).

The wording on lines 6 and 7 of pages 6 and 29 constitutes subject-matter pursuant to Rule 9.1 (iv) PCT and, moreover, casts doubt on the scope of protection sought, contrary to Article 6 PCT.

The wording on page 10, line 31 refers to patent specifications previously mentioned. However, no patent applications are cited in the description

Concerning Box VIII

Claims 1 to 3, 7, 16, 19 to 22, 24, 26, 28, 30 and 38 to 42 lack clarity, and therefore do not meet the requirement set out in Article 6 PCT.

Claims 1-3, 7, 16, 19, 21, 22, 24, 26, 28, 30 and 38 to 42

It is not clear from these claims, what an "application" is. Is it an "application program" that forms part of the decoder's soft/firmware ? Or is it the use to which the receiver/decoder is put ?

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/IB00/00836

Claim 20

It is not clear from the context of this claim, what the significance of the following terms is: "SERIAL", "PARALLEL", "POINTER", "PICTURE", "SERVICE" and "MLOAD", especially as the claim tries to define these as "devices". Just what is a "picture" or a "service" device ?

- 33 -

carrying out a method of testing an application for a receiver/decoder, the method comprising simulating a function of the receiver/decoder.

29. A computer program product comprising a program for carrying out the
5 method of claims 25 or 26.

30. A computer program product comprising a program for carrying out
a method of testing an application for a receiver/decoder, the method further comprising
simulating a function of the receiver/decoder.

10

31. A method of testing an application for a receiver/decoder substantially
as described herein with reference to and as illustrated in the accompanying drawings.

32. Apparatus for testing an application for a receiver/decoder substantially
15 as described herein with reference to and as illustrated in the accompanying drawings.

33. Apparatus for testing an application for a receiver/decoder, said apparatus
comprising a workstation, said workstation comprising an editor for creating and editing
applications, and a simulator for receiving an application from the editor and running the
20 received application to test the application, wherein the simulator comprises at least one
simulated component of a receiver/decoder, the simulation being customizable in
dependence on the application to be tested.

34. Apparatus according to claim 33 wherein said simulated component is at
25 least one of a simulated virtual machine, a simulated device manager and a simulated
device.

35. Apparatus according to claim 33 or 34 wherein the simulation is
simulated, at least in part, in software.

30

36. Apparatus according to any of claims 33 to 35 wherein the simulation is
simulated, at least in part, in hardware which emulates hardware in a receiver/decoder.

37. Apparatus according to claim 36, wherein said hardware comprises
35 hardware belonging to the workstation.

38. A method of testing an application for a receiver/decoder using a

-33a-

workstation comprising an editor for creating and editing applications, and a simulator for testing the application, said simulator comprising simulated components of a receiver/decoder, said method comprising the steps of:

customising the simulation in dependence on an application to be tested;

5 and

running the application to test it.

39. Apparatus for testing an application for a receiver/decoder, comprising a workstation, said workstation comprising a processor and associated memory adapted to
10 simulate a function of a receiver/decoder.

40. Apparatus for editing and testing an application for a receiver/decoder, comprising a processor and associated memory, wherein said processor and associated memory is adapted to edit said application, and apparatus for testing the application
15 according to claim 39.

41. A workstation comprising:
a processor and associated memory, wherein said processor and associated memory is adapted to:
20 edit applications; and
simulate functions of a receiver/decoder; and
a display for displaying an output of an edited application and an output of a simulated function.

25 42. Apparatus for testing an application for a receiver/decoder, comprising a workstation, said workstation comprising:
a processor and associated memory adapted to:
create and edit applications; and
30 run an application to test it using at least one simulated component of a receiver/decoder, to effect a simulation of a function of the receiver/decoder, said simulation being customizable in dependence on the application to be tested.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PC/MGM/21569	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 b. low.	
International application No. PCT/IB 00/ 00836	International filing date (day/month/year) 12/06/2000	(Earliest) Priority Date (day/month/year) 09/07/1999
Applicant CANAL+ SOCIETE ANONYME et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 2 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

APPARATUS FOR AND METHOD OF TESTING SOFTWARE APPLICATIONS

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 00/00836

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04N17/04 G06F11/00 G06F11/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04N G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 43165 A (CANAL+ SOCIETE ANONYME) 1 October 1998 (1998-10-01) the whole document	1,21,25, 31,32
A	WO 98 43433 A (CANAL+ SOCIETE ANONYME) 1 October 1998 (1998-10-01) the whole document	1,21,25, 31,32
A	US 5 659 793 A (ESCOBAR G. ET AL) 19 August 1997 (1997-08-19) column 4, line 63 - column 5, line 2 column 20, line 21 - line 61	1,21,25, 31,32
A	US 5 654 751 A (RICHARD A.) 5 August 1997 (1997-08-05) the whole document	1,21,25, 31,32

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

13 September 2000

Date of mailing of the international search report

20/09/2000

Name and mailing address of the ISA

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Authorized officer

Verschelden, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 00/00836

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9843165 A	01-10-1998	AU 2770797 A	20-10-1998
		EP 0968465 A	05-01-2000
		NO 994537 A	22-11-1999
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		WO 9843248 A	01-10-1998
		WO 9843415 A	01-10-1998
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 00/00836

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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US 5654751 A	05-08-1997	NONE	

I. Basis of the opinion

1. This opinion has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".*):

Description, pages:

1-29 as originally filed

Claims, No.:

1-32 as originally filed

Drawings, sheets:

1/13-13/13 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1, 16, 17, 21-23, 25-30 : No
Inventive step (IS)	Claims 2-15, 18-20, 24 : No
Industrial applicability (IA)	Claims

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Concerning Box V

The following document is cited:

D1 : WO-A-98/43433

The subject-matter of claims 1, 16, 17, 21 to 23 and 25 to 30 lacks novelty, and therefore does not meet the requirement set out in Article 33 (2) PCT.

In detail, computer workstations for editing applications, for performing simulations, and for displaying the editor and simulator outputs are well known in the computer aided design industry.

Thus, nothing which could be considered as new can be recognised in the subject-matter of claims 21 and 22.

Such workstations run, by and large, a GUI ("windows") interface, so that the subject-matter of claim 23 also lacks novelty.

Since a workstation is an "apparatus", and has a method of operation, then the same objections apply to independent claims 1 (apparatus), 25 and 26 (methods), and dependent claims 16 and 17.

Moreover, any prior CAD program or storage medium carrying such a program for a workstation denies the subject-matter of independent claims 27 to 30 of novelty.

The subject-matter of claims 2 to 15, 18 to 20 and 24 lacks an inventive step, and therefore does not meet the requirement set out in Article 33 (3) PCT.

The additional feature of claim 2 relates to an obvious way of simulating an isolated function, viz. to simulate its environment as well.

The additional features of claims 3 to 9 relate to well known / obvious features of computer workstations, of the VM / RTE of document D1, and are thus of no inventive significance.

The additional features of claims 10 and 11 are obvious in view of the fact that it is better to possess results from a real piece of hardware, however good a simulation might be (for which reason, car designers go from computer models to wind tunnel models and prototypes).

The additional features of claims 12 to 15, 18, 19 and 24 relate to obvious features of simulation apparatuses, or of the VM / RTE of document D1, and are thus of no inventive significance.

The additional features of claim 20 relate to obvious functions to be simulated for a receiver, and thus are of no inventive significance.

Concerning Box VII

The claims are not in the two-part form (Rule 6.3 (b) PCT).

Reference signs are missing from the claims (Rule 6.2 (b) PCT).

The reference "212" appearing on page 14, line 13 is missing from Figure 5. (Rule 11.13 (I) PCT).

The wording on lines 6 and 7 of pages 6 and 29 constitutes subject-matter pursuant to Rule 9.1 (iv) PCT and, moreover, casts doubt on the scope of protection sought, contrary to Article 6 PCT.

The wording on page 10, line 31 refers to patent specifications previously mentioned. However, no patent applications are cited in the description

Claims 31 and 32 do not meet the requirements set out in Rule 6.2 (a) PCT.

Concerning Box VIII

Claims 1 to 3, 7, 16, 19 to 22, 24, 26 and 28 lack clarity, and therefore do not meet the requirement set out in Article 6 PCT.

Claims 1-3, 7, 16, 19, 21, 22, 24, 26 and 28

It is not clear from these claims, what an "application" is. Is it an "application program" that forms part of the decoder's soft/firmware ? Or is it the use to which the receiver/decoder is put ?

Claim 20

It is not clear from the context of this claim, what the significance of the following terms is: "SERIAL", "PARALLEL", "POINTER", "PICTURE", "SERVICE" and "MLOAD", especially as the claim tries to define these as "devices". Just what is a "picture" or a "service" device ?